

REMARKS

This is a full and timely response to the non-final Office Action mailed October 21, 2003. Reconsideration in light of the above amendments and following remarks are courteously requested. Applicant believes that no fee is required for entry of this Response. Should this Application require any fee or extension of time, however, please consider this as a petition for such extension and as authorization to debit Deposit Account No. 50-2091 for such fees as may be required to consider this Response or to prevent abandonment of this application.

Claims 1-4, 6-11, 13-16 and 18-22 remain pending in the application, with claims 1, 7 and 15 being independent claims. The Office Action rejected all of the claims under Section 103, citing various combinations of U.S. Patent No. 6,053,736 ("Huffman"), U.S. Patent No. 6,170,014B1 ("Darago"), and US Patent No. 6,478,581 ("Lin"). The various rejections are addressed herein.

The presently-claimed invention relates to systems and methods for presenting flight simulation information to a user operating a client computer on a digital network such as the Internet. Modern aviation, especially commercial aviation, makes heavy use of various computer systems on board the aircraft. Pilots rely upon the flight management system (FMS), in particular, to plan flights, to execute flight plans and to otherwise control the aircraft during flight. A commercial vendor of FMS systems such as Honeywell International Inc. continually updates the FMS systems to provide improved safety, performance, economics of operation, etc. for the aircraft. Typically these updates are provided in software releases that can be loaded into the FMS by a skilled technician. Due to the many types of aircraft, however, and the variety of equipment found across different aircraft, not every aircraft uses the same release of FMS software. Indeed, it is possible that many pilots will come into contact with several versions of the FMS software during their flights. For this and other reasons, it is desirable that pilots be able to learn the features, subtleties and nuances of each particular FMS software release used on their aircraft. This is difficult to provide in practice, however, because software versions can change rapidly, and maintaining copies of software for simulation purposes can be expensive for many airlines. Further, it is not typically practical to design simulators that provide the level of detail provided in the actual FMS software, or to adjust this level of detail to reflect different releases of FMS software code.

To address this issue, various embodiments of the present invention provide systems and techniques that allow pilots to interact with the actual code used on the aircraft in an environment that is readily accessible; namely a digital network such as the Internet. Using the systems and methods described in the present Specification, pilots can log into a server using a conventional web browser and, after authenticating, gaining access to actual aircraft component code. Accordingly, the present invention is not concerned so much with simulating the entire flight environment as with simulating the actual code used by actual aircraft components.

The references cited by the Examiner in the first and final Office Actions do not relate to this issue, and accordingly do not disclose the presently-claimed invention, even when the references are taken in combination.

The Huffman reference, for example, which is the primary reference cited against claim 1, describes a single platform system for simulating an AWACS flight (col. 1, lines 15-18). This is a conventional-type aircraft simulation platform as discussed on page 2, lines 1-10 of the Specification as originally filed; it does not interact with a digital network in any way. Accordingly, Huffman does not disclose at least a gateway to a digital network as recited in claim 1. Huffman would have no use for a gateway, since it is in no way concerned with granting or limiting access to the host computer. Applicant pointed out this shortcoming in the Response dated August 11, 2003, yet the Final Office Action does not address this assertion. Indeed, the Final Office Action merely states without citation or elaboration that "Huffman discloses a content-providing system...comprising a gateway having an interface to a digital network", an assertion that is not borne out by the reference. Applicant therefore respectfully requests reconsideration and elaboration of the elements of Huffman that the Examiner alleges anticipate the "gateway to a digital network" as recited in Applicant's claim 1.

The Final Office Action acknowledges that Huffman does not disclose at least the element of code derived from an actual aircraft component, which is recited in each of the pending independent claims. As stated above, the benefit of using actual code (as opposed to simulated code) is that the system is allowed to simulate the software itself in great detail.

The Lin reference (particularly at FIG. 2 and accompanying text) is cited as providing this missing element of Applicant's claims. As a preliminary matter, FIG. 2 of Lin clearly describes a real flight environment (i.e. an actual aircraft), and not a simulator or simulation environment in any way. Even the Lin reference, taken as a whole, describes a technique for

interfacing an actual control display navigation unit (CDNU) to a flight training system to allow the trainer to interact with the component itself. The Lin system therefore provides cabling and other interfacing to allow an actual CDNU box to be wired into a trainer. In contrast to the presently claimed systems and methods, however, Lin requires that the actual device (which is typically very expensive) be purchased, wired into the simulator, and then updated with software releases (also potentially very expensive) for each simulation run. Accordingly, no part of Lin discloses at least "*a server portion of said flight simulator program, wherein the server portion comprises executable code that is based upon executable code used in an actual aircraft component*" as recited in Applicant's claim 1. Lin does not describe a server that executes code based upon code used in an actual component; it describes a technique for wiring the actual component into the trainer. This difference is significant, because the latter does not provide the benefits of the former.

For these reasons, even the cited combination of Huffman and Lin fail to describe the presently-claimed invention of claim 1. Neither reference discloses a gateway to a digital network, and neither discloses a server portion comprising executable code that is based upon executable code used in an actual aircraft component. Reconsideration of the rejection is therefore respectfully requested. Similar analysis can be readily applied to the rejections of the remaining claims. In particular, the Durago reference similarly fails to reference a gateway to a digital network or executable code that is based upon executable code used in an actual aircraft component. To this end, the references cited fail to expressly or impliedly disclose each and every element of Applicant's claims when taken alone or in combination. Reconsideration is therefore requested.

Moreover, the Examiner has not yet provided an adequate basis for the cited combinations. The Examiner states in the Final Office Action that "all motivation statements are derived from the prior art". Absolutely no basis for these statements is provided on the record, however. The motivation for the Huffman/Lin combination, for example, is merely stated as "to simulate real avionics equipment in a flight simulator environment", without citation to the art. This motivation is inadequate because the Office Action does not provide a basis for the suggestion (e.g. a citation to one of the references), and, to the extent the motivation stated is relevant to Applicant's invention, the use of actual aircraft code is suggested only by Applicant's disclosure, and not by any other reference of record. While the Examiner does cite to "column

6" of Durago as providing the motivation of "to provide intellectual property licensing enforcement", the only language in column 6 of Durago relating to intellectual property licensing relates to the insertion of disabling code into student courseware. Indeed, Durago does not relate to aircraft or flight simulators in any way, and therefore is from a non-analogous field as the present invention. Finally, the stated motivation for the Durago/Lin/Huffman combination is merely "to provide a standardized network for providing interactive simulation of aircrafts, and thereby permitting remote interactive mission and training scenarios", without any further citation to the references. These general statements are insufficient to support a finding of obviousness under the current state of the law. Additional detail about the inadequacies of these statements will be provided upon appeal, if necessary.

Conclusion

Even if the cited references were combined, they would still fail to anticipate each and every element of Applicant's claims, particularly a gateway to a digital network and server code based upon code used in an actual aircraft component. Indeed, there would be no suggestion or motivation to combine or modify any of the references of record, because they are not concerned with providing access to actual aircraft code in a digital network environment such as the Internet. Based on the above, Applicant respectfully requests reconsideration of the rejections set forth in the Final Office Action and allowance of the present Application. In the alternative, Applicant requests elaboration as to the basis for rejecting the "gateway" language of claim 1.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

Respectfully submitted on behalf of assignee
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Dated Dec 1, 2003

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